



**ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
DECEMBER 8, 2003 – 1:30 P.M.
CONSTRUCTION & TECHNOLOGY
CONFERENCE ROOM**

Present: L. E. Tibbits C. Roberts M. VanPortFleet
 J. D. Culp R. Safford J. W. Reincke
 T. Fudaly C. Bleech

Absent: J. Friend J. Polasek B. J. O'Brien

Guests: B. Zimmerman J. Grossklaus D. Weber

OLD BUSINESS

1. Approval of the Minutes of the November 6, 2003, Meeting – L. E. Tibbits

The minutes of the November 6, 2003, meeting were approved.

NEW BUSINESS

1. Pavement Selection, I-75 Rehabilitation, CS 25031/73171, JN 75175 – D. Weber and C. Bleech

The alternatives considered were a reconstruction rehabilitation for a hot mix asphalt pavement (Alternate 1 – Equivalent Uniform Annual Cost [EUAC] \$141,219/directional mile) and a new jointed plain concrete pavement (Alternate 2 – EUAC \$96,803/directional mile)

A life cycle cost analysis was performed and Alternate 2 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

Alternate 2 Rehabilitation: Unbonded Concrete Overlay on Repaired Concrete

8" (203.4mm)..... Jointed Plain Concrete Pavement-14' jt spacing (Mainline)
6" (152.4mm)..... Open Graded Underdrains
9" (229.4mm)..... 9" Repaired Concrete Pavement
2" (50.8mm)..... 2" Existing Bituminous Bond Breaker
14" (355.6mm)..... Existing Sand Subbase
33" (838.2mm)..... Total Thickness

Alternate 2 New Construction: Rigid Concrete Pavement

8" (203.4mm).....	Jointed Plain Concrete Pavement-14' joint spacing (Outside; Inside Shoulder and Lane 4)
11" (279.4mm).....	Open Graded Drainage Course w/Geotextile Separator (Outside; Inside Shoulder and Lane 4)
14" (355.6mm).....	Sand Subbase (Outside and Inside Shoulder and Lane 4)
33" (838.2mm).....	Total Thickness
Present Value Initial Construction Costs	\$1,128,006/directional mile
Present Value Initial User Costs	\$363,486/directional mile
Present Value Maintenance Costs.....	\$88,031/directional mile
Equivalent Uniform Annual Costs.....	\$96,803/directional mile

2. **Special Provision for Traffic Control Quality and Compliance Pilot Program – B. Zimmerman**

The management and maintenance of traffic control in work zones is a critical safety issue. Field staff requested more help in their ability to ensure contractor compliance for proper and timely management and maintenance of traffic control measures and devices in work zones.

A special provision was developed with input from the Michigan Road Builders Association, the Association of Underground Contractors, and the FHWA. It incorporates penalties when traffic control is either non-compliant or non-conforming. It further stipulates a penalty when corrections or adjustments are ordered and not completed in a timely manner.

The Traffic Recommendations Committee also proposes a pilot project in each region be approved with this special provision for the 2004 construction season. Each region will evaluate the benefits and effectiveness of the special provision on their project.

ACTION: The special provision is approved as amended. The regions have already noted pilot projects for inclusion and evaluation.

3. **Guidelines for Truck-Mounted Attenuator (TMA) Use on Construction Projects – J. Grossklaus**

Guidelines were originally developed in 1999. Modifications were made including removal of maintenance activities. The guidelines were approved, but never distributed. In July 2002, an instructional memorandum was written, but further review was suggested. An agreement was later reached to create two separate guidelines; one for construction and one for maintenance.

The Traffic Recommendations Committee has updated the guidelines for construction and recommends their adoption. The guidelines for maintenance are being developed and will be brought to EOC in a month or two.

ACTION: The guidelines for TMA use on construction projects are approved.

4. **Research Report, *Safety Performance Evaluation of Michigan's Temporary Traffic Control Devices* – J. Grossklaus**

Research was conducted to evaluate the safety performance of existing work-zone traffic control devices. Full scale crash tests were conducted to determine their compliance with NCHRP Report 350.

EOC previously reviewed and acted on the recommendations and changes resulting from the research evaluation.

The final research report was presented for acceptance.

ACTION: The final report is accepted and approved for distribution.

(Signed Copy on File at C&T)

Jon W. Reincke, Secretary
Engineering Operations Committee

JWR:kar

cc:	G. J. Jeff	S. Mortel	K. Peters
	K. Steudle	D. Jackson	J. Ingle
	L. Hank	W. Tansil	J. Steele (FHWA)
	EOC Members	D. Wresinski	A. C. Milo (MRBA)
	Region Engineers	R. D. Till	R. J. Risser, Jr. (MCPA)
	TSC Managers	D. A. Juntunen	D. Hollingsworth (MCA)
	Assoc. Region Engineers	J. Ruskowski	J. Becsey (MAPA)
	T. Kratofil	C. Libiran	M. Newman (MAA)
	M. DeLong	R. J. Lippert, Jr.	M. Nystrom (AUC)
	B. Kohrman	T. L. Nelson	J. Murner (MRPA)
	J. Shinn	T. Phillips	R. Brenke (ACEC)